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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,803	08/13/2001	Masami Kanasugi	FUJX 18.900	8228

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EXAMINER

DO, CHAT C

ART UNIT	PAPER NUMBER
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2124

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/928,803	Applicant(s) KANASUGI ET AL.	
	Examiner Chat C. Do	Art Unit 2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10, 15, 16, 18, 19, 21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) 11-14, 17, 20 and 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 15, 16, 18, 19, 21 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>08/13/01</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Claims 8-10, 16, 19, and 22 are generic to a plurality of disclosed patentably distinct species comprising:

Species I: Claims 1-7, 15, 18, and 21 drawn to a FIR filter wherein the input data into the second operational unit is a difference between additional data.

Species II: Claims 11-14, 17, 20, and 23 drawn to a FIR filter wherein the input data into the second operational unit is a ratio of additional data.

2. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. Applicant's election of Species I of claims 1-7, 15, 18, and 21 in the reply filed on 08/31/2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-10, 15-16, 18-19, and 21-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 1, the limitation "previous data" is mis-descriptive in the phrase "for operating previous data among said input data" in line 5 because both the first and second operational units operate on the same instant input data as seen in Figure 5 wherein the instant input data go into both the first and second operational units (12 and 14 respectively). For examination purposes, the examiner considers the limitation "previous data" in line 5 as "input data". Claims 8, 15-16, 18-19, and 21-22 have the same rejection.

Thus, claims 2-7 and 9-10 are also rejected for being dependent on the rejected base claims 1 and 8 respectively.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

Art Unit: 2124

subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-2, 8-9, 15-16, 18-19, and 21-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Brokish (U.S. 6,665,696).

Re claim 1, Brokish discloses in Figure 1B an FIR filter (abstract lines 4-6) comprising: a first operational unit (220) for operating input data (261) which consists of transmitting information and is composed of bit strings (e.g. 262 including  $x_n$ ,  $x_0$ ), and additional data (e.g. 270) which is added in order to transmit input data and; a second operational unit (230) for operating previous data among input data (261) and a difference (e.g. 254) between additional data corresponding to the previous data and additional data corresponding to present data among input data; and an adding unit (210) for adding (212 as adder/subtractor) results of the first and second operations and outputting the resultant (254 wherein  $h_x$  as impulse response) as a filter response.

Re claim 2, Brokish further discloses in Figure 1B a data separation unit for separating data inputted to the filter into input data and additional data (e.g. 261 and 270 - in two different locations).

Re claim 8, it has all the limitations cited in claim 1. Thus, claim 8 is also rejected under the same rationale as cited in the rejection of rejected claim 1.

Re claim 9, it has same limitations cited in claim 2. Thus, claim 9 is also rejected under the same rationale as cited in the rejection of rejected claim 2.

Re claim 15, it is a method claim of claim 1. Thus, claim 15 is also rejected under the same rationale as cited in the rejection of rejected claim 1.

Re claim 16, it is a method claim of claim 8. Thus, claim 16 is also rejected under the same rationale as cited in the rejection of rejected claim 8.

Re claim 18, it is an integrated circuit claim of claim 1. Thus, claim 18 is also rejected under the same rationale as cited in the rejection of rejected claim 1.

Re claim 19, it is an integrated circuit claim of claim 8. Thus, claim 19 is also rejected under the same rationale as cited in the rejection of rejected claim 8.

Re claim 21, it is a communication system claim of claim 1. Thus, claim 21 is also rejected under the same rationale as cited in the rejection of rejected claim 1.

Re claim 22, it is a communication system claim of claim 8. Thus, claim 22 is also rejected under the same rationale as cited in the rejection of rejected claim 8.

#### ***Allowable Subject Matter***

8. Claims 2-7 and 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. U.S. Patent No. 6,650,688 to Acharya et al. disclose a chip rate selectable square root raised cosine filter for mobile telecommunications.

Art Unit: 2124

- b. U.S. Patent No. 6,236,838 to Golemon et al. disclose a system for super resolution based estimation of control signals in a communications system.

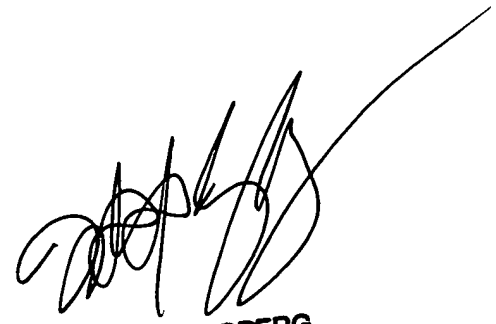
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (571) 272-3721. The examiner can normally be reached on M => F from 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chaki Kakali can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chat C. Do  
Examiner  
Art Unit 2124

November 24, 2004



**TODD INBERG**  
**PRIMARY EXAMINER**